

CyberPower[®]

Reliability. Quality. Value.



User's Manual Professional Rack Mount UPS PR3000

K01-3000SCA-04

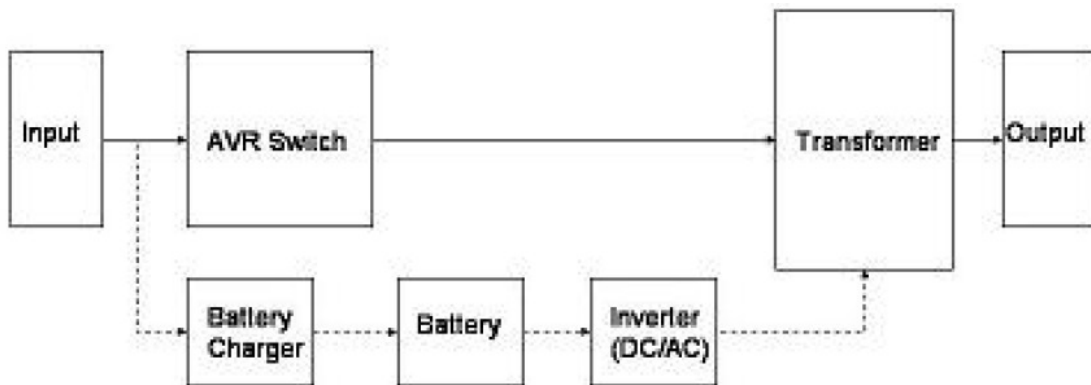
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SAFETY WARNINGS

- This manual contains important safety instructions. Please read and follow all instructions carefully during installation and operation of the unit. Read this manual thoroughly before attempting to unpack, install, or operate.
- The AC power outlet must be installed near the UPS and must be easily accessible.
- Attention, risk of electric shock. Disconnecting this unit from the power mains, does not remove the risk. Voltage may still be present from the battery pack. The battery pack quick connectors should be disconnected before performing maintenance or service work on the UPS.
- When replacing the batteries, use the same number and type of batteries
- Do not open or mutilate the battery or batteries. Electrolyte is harmful to the skin and eyes.
- A battery can present a risk of electric shock and high short circuit current. The following precaution should be observed when working on batteries
 - Remove watches, rings or other metal objects.
 - Use tools with insulated handles.
 - Never short circuit the battery terminals.

BLOCK DIAGRAM



INSTALLATION

UNPACKING

Inspect the UPS upon receipt. The box of PR3000 should contain the following: (1) UPS Unit; (1) User's Manual; (2) Rack Mount Brackets; (2) Stands; (1) PowerPanel Plus Software Disk; (1) PowerPanel Software Disk; (1) Telephone Cable; (2) Serial Interface Cables (RS232); (1) Serial-to-USB cable

HOW TO DETERMINE THE POWER REQUIREMENTS OF YOUR EQUIPMENT

1. Insure that the equipment plugged into the seven battery power- supplied outlets does not exceed the UPS unit's rated capacity (3000VA/2200W for PR3000). If rated unit capacities are exceeded, an overload condition may occur and cause the UPS unit to shut down or the circuit breaker to trip.
2. If the power requirements of your equipment are listed in units other than Volt-Amps (VA), convert Watts (W) or Amps (A) into VA by doing the calculations below. Note: The below equation only calculates the maximum amount of VA that the equipment can use, not what is typically used by the equipment at any one time. Users should expect usage requirements to be approximately 60% of the maximum value.

TO ESTIMATE POWER REQUIREMENTS

1. _____ Watts (W) x 2.0 = _____ VA or _____ Amps (A) x 120 = _____ VA
2. Add the totals up for all pieces of equipment and multiply this total by 0.6 to calculate actual requirements. There are many factors that can affect the amount of power that your computer system will require. The total load that you will be placing on the battery-powered outlets should not exceed 80% of the unit's capacity.

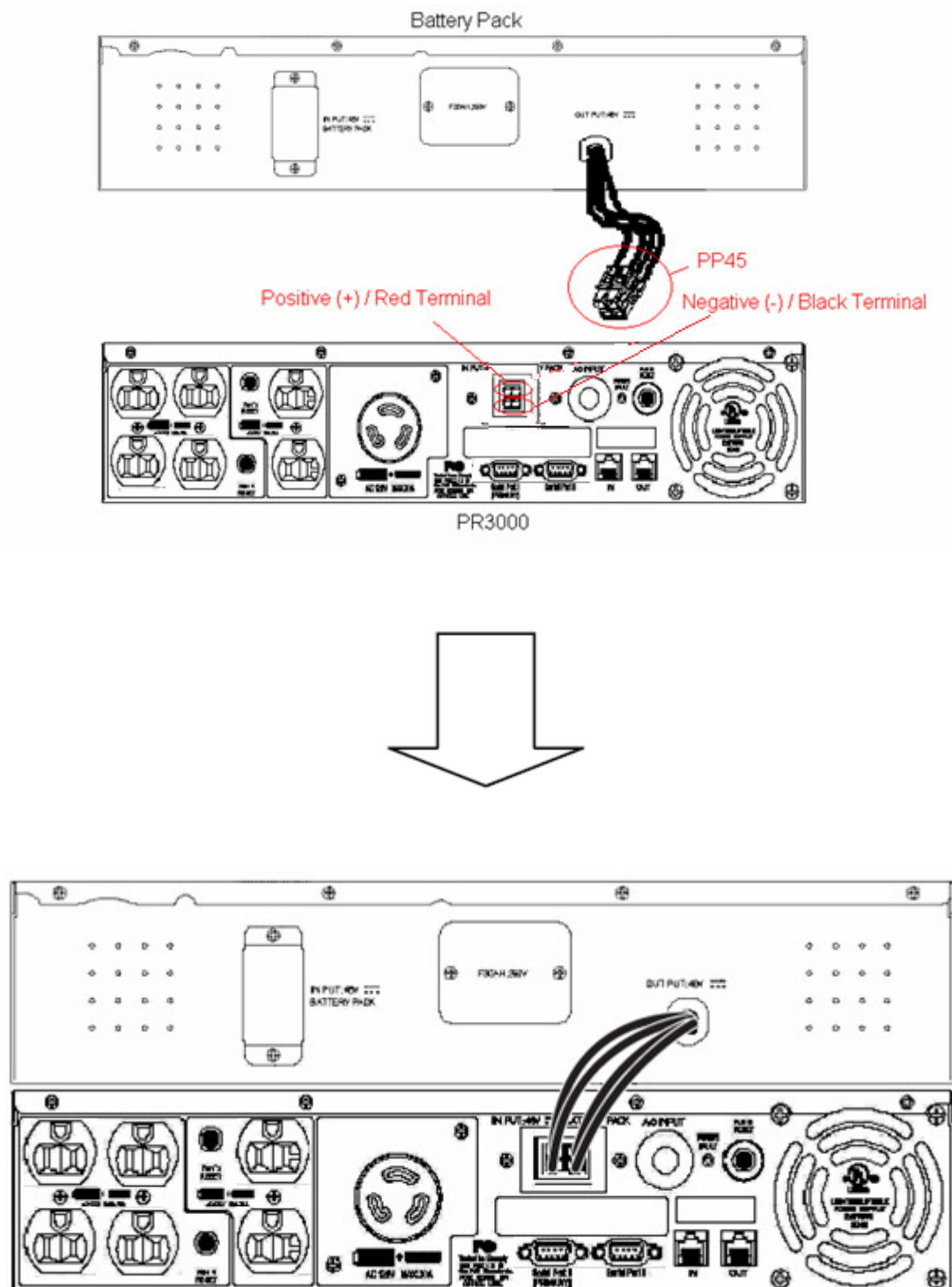
HARDWARE INSTALLATION

1. Your new UPS may be used immediately upon receipt. However, recharging the battery for at least four hours is recommended to insure that the batteries are fully charged. Charge loss may occur during shipping and storage. To recharge the battery, simply leave the unit plugged into an AC outlet. The unit will charge in both the on as well as the off position.
2. If you wish to use the software, connect the enclosed serial interface cable to the serial port on the UPS and an open serial port on the computer. If you would like to use USB interface, please connect the USB adapter with the serial cable then connect the USB adapter to your computer.
3. With the UPS unit off and unplugged, connect your computer, monitor, and any other devices into the battery power supplied outlets. DO NOT plug a laser printer, copier, space heater, vacuum, paper shredder or other large electrical device into the UPS. The power demands of these devices will overload and

- possibly damage the unit.
4. To surge protect a network connection, connect a network cable from the wall jack outlet to the IN jack of the UPS. Then connect a network cable from the OUT jack on the UPS to the network device.
 5. Plug the UPS into a wall outlet. Make sure the wall branch outlet is protected by a fuse or circuit breaker and does not service equipment with large electrical demands (e.g. refrigerator, copier). Avoid using extension cords. If used, the extension cord must be rated for 30 Amps.
 6. Depress the power switch to turn the unit on. The power on indicator light will illuminate.
 7. Your UPS is equipped with an auto-charge feature. When the UPS is plugged into an AC outlet, the battery will automatically recharge.
 8. To maintain optimal battery charge, leave the UPS plugged into an AC outlet at all times.
 9. To store your UPS for an extended period, cover it and store with the battery fully charged. Recharge the batteries every three months to insure battery life.
 10. To connect auxiliary battery pack:
 - (a.) Remove the protection cover on the UPS rear panel.
 - (b.) Connect the **black wire and the red wire of the Battery Pack** to the **negative (-) / black terminal and the positive (+) / red terminal of the PR3000** respectively. (See Figure 1)

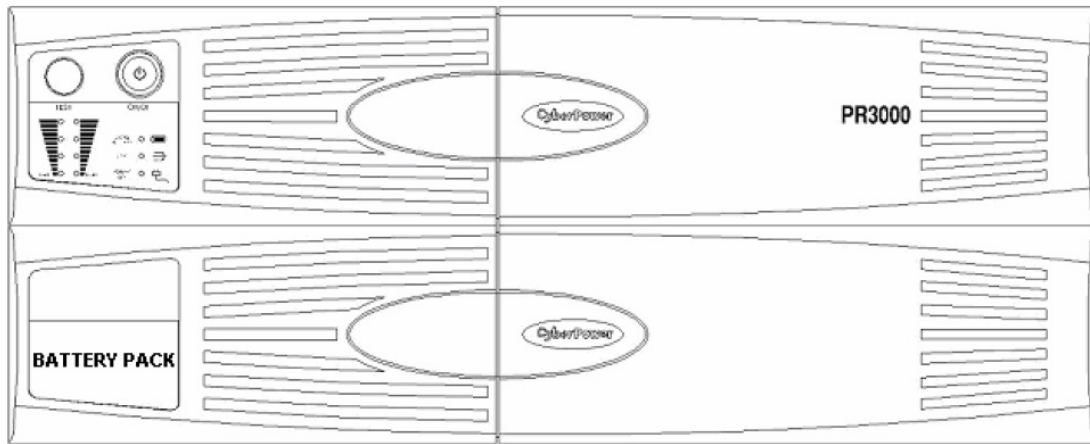
****Note:** Due to the large current, make sure to connect the positive to positive and the negative to negative. Otherwise, it may cause a short circuit and the unit may be irreversibly damaged.

Figure 1: Connecting PR3000 with Battery Pack



BASIC OPERATION

FRONT PANEL DESCRIPTION



Power Switch



Press the power button to turn the UPS ON or OFF

Test Switch



The PR-UPS performs a self-test automatically when power on. If the UPS passes the test, it returns to on-line operation. If the UPS fails the self-test, please recharge the battery for 4 hours and perform another self-test. If it fails after recharging the battery, please replace the battery.

Battery Indicators



This indicator shows a visual indication of the battery charge. If battery capacity is under 20%, no indicator LED will illuminate and UPS starts beeping.

Load Level Indicators



This indicator shows a visual depiction of the UPS load. The load indicator LED will turn orange if the load is between 80 and 100%. If the load is under 20%, no indicator LED will illuminate.

Power On Indicator



This LED is illuminated when the utility condition is normal and the UPS outlets are providing “clean power”, free of surges and spikes.

Battery Indicator



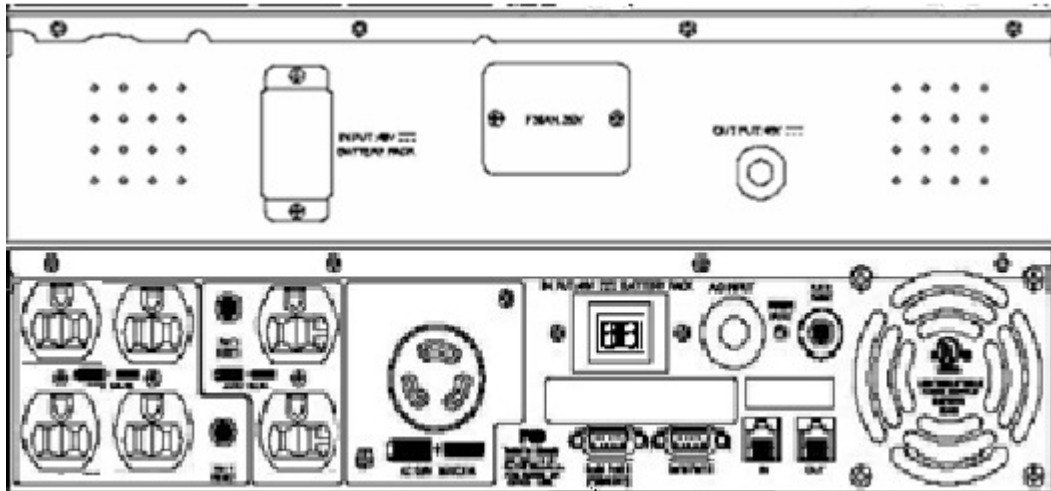
This illuminates during utility failure, indicating that the battery is supplying power to the battery-power supplied outlets.

AVR Indicator



This LED indicates that the UPS is operating in automatic voltage regulation mode. When the LED is illuminated continuously, it indicates input over-voltage and the UPS unit bucks the voltage. When the LED is flashed in rotation, it indicates that the UPS unit is boosting input voltage.

REAR PANEL DESCRIPTION

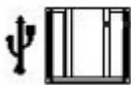


Circuit Breaker Reset for Overload Protection



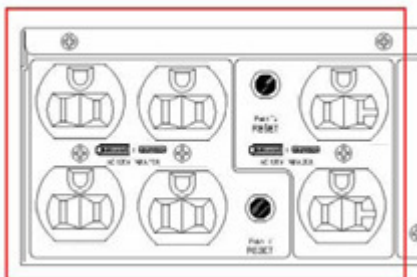
Re-settable circuit breakers provide optimal overload protection.

USB Port



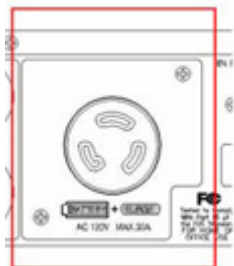
Through USB communication port to manage software

Battery Backup and Surge Protection Outlets



Provides six battery powered, surge protected and AVR outlets for connected equipment and insures uninterrupted operation of connected equipment during a power failure.

Individual Backup Power for Critical Load



Provides a battery powered, surge protected and AVR outlet for the most critical connected equipment and insures uninterrupted operation of connected equipment during a power failure.

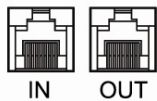
**** NOTE:** When the UPS is overloaded, the other six minor outlets will not provide power to equipments, prior to the Individual Backup Power Outlet.

Dual Serial Ports



The PR3000 provides two serial ports to allow connection and communication between the UPS and two computers. (See Figure 2) This allows the simultaneous shutdown of two computer systems. These interfaces are also compatible with the UPS service provided by Windows 2000, Windows, Windows NT, Windows XP, Windows Server 2003 and Mac OS 10X.

Communication Protection Ports



Ethernet RJ-45 Network Protection Ports protect standard network cables.

The Primary computer (with PowerPanel Plus installed) is the computer that you will use to control the UPS and make any change to the operation of the UPS. The Secondary computer (with PowerPanel installed) is unable to exhibit any control over the UPS. When power failure occurs, one of the following shutdown sequences will be executed.

1. If the Primary and Secondary serial ports are both in use: the Primary computer will start to count down (user controlled delay) for shutdown (User Control delay can be set in the PowerPanel Plus software. Recommended time is 5 minutes). Once the Primary computer is shutdown, the UPS will signal the Secondary computer and initiate the Secondary to shutdown. The UPS default shutdown time is 2 minutes. Therefore, it is recommended that Secondary computer is set to shutdown within 1 minute in PowerPanel Software.
2. If only the Secondary serial port is in use: the Secondary computer will shut down following the user settings in PowerPanel Software. However, the Secondary computer will not be able to signal the UPS to shutdown. Therefore, the UPS will only power off when it is in low battery.

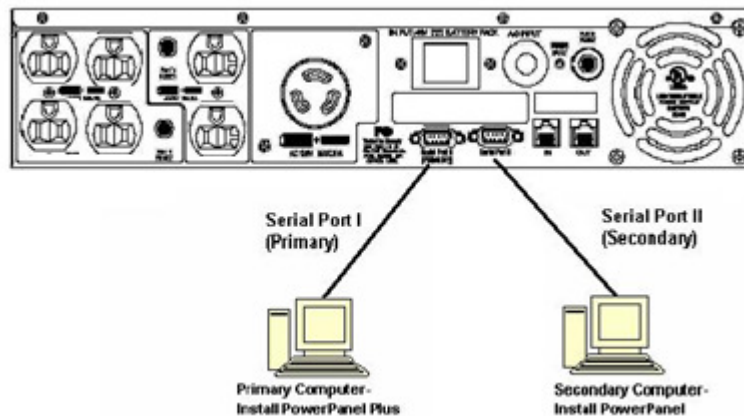


Figure2: Dual Serial Port and Software Installation






TROUBLESHOOTING

Problem	Possible Cause	Solution
Outlets do not provide power to equipment	Circuit breaker is tripped due to overload.	Turn the UPS off and unplug at least one piece of equipment. Wait 10 seconds, reset the circuit breaker and then turn the UPS on.
	Batteries are discharged.	Recharge the unit for at least 4 hours.
	Unit has been damaged by a surge or spike.	Recharge the battery by leaving the UPS plugged in at least 4 hours.
The UPS does not perform expected runtime.	Battery is not fully charged.	Recharge the battery by leaving the UPS plugged in at least 4 hours.
	Battery is slightly worn out.	Contact CyberPower about replacement batteries at tech@cyberpowersystems.com
The UPS will not turn on.	The on/off switch is designed to prevent damage by rapidly turning it off and on.	Turn the UPS off. Wait 10 seconds and then turn the UPS on.
	The unit is not connected to an AC outlet.	The unit must be connected to a 110/120V 50/60Hz outlet.
	The battery is worn out.	Contact CyberPower about replacement batteries at tech@cyberpowersystems.com
	Only the individual Backup power outlet provides power to equipment.	Press the Self-Test button to recover the other six outlets.
PowerPanel or PowerPanel Plus is inactive(all icons are gray)	The serial cable is not connected.	Connect the serial cable to the UPS unit and an open serial port of your computer. You must use the cable that came with the unit.
	The serial cable is connected to the wrong port.	Try another serial port of your computer.
	The unit is not providing battery power.	Shutdown your computer and turn the UPS off. Wait 10 seconds and turn the UPS on. This should reset the unit.
	The serial cable is not the cable that was provided with the unit.	You must use the cable included with the unit for the software.

TECHNICAL SPECIFICATIONS

Model	PR3000
Capacity(VA)/(Watts)	3000VA/2200W
Input	
Voltage Range	85-150Vac
Frequency Range	47-63Hz
Output	
On battery Output Voltage	Pure sine wave at 120Vac +/- 5%
Transfer time(Typical)	60Hz +/- 1%
Overload protection	4ms
Internet Ready	On Utility:Circuit breaker, on battery:internal current limiting
Surge Protection and Filtering	
Lightning/Surge Protection	Yes
Internet Ready	Yes
Physical	
Toatal # of UPS Receptacles	7
Dimensions (in)	2U Rack *2 (17.1" x 15.3" x 3.5")
Weight (lbs)	122
Battery	
Sealed Maintenance Free Lead Acid Battery	7AHx8
Typical Recharge Time	8 Hours
Warning Diagnostics	
Indicators	Power On, Using Battery, Overload
Audible Alarms	On Battery, Low Battery, Overload
Environmental	
Operating Temperature	32 °F to 104°F / 0°C to 40 °C
Operating Relative Humidity	0 to 95% NON-CONDENSING
Communication	
Power Panel Plus Software	Windows 98/ME/NT/2000/XP, MAC OS 10.0 or later.
Management	
Self-Test	Manual Self-Test
Auto-Charger	Yes
Auto-Restart	Yes
SNMP/HTTP Network	Yes, with optional RMCARD100

DEFINITIONS FOR ILLUMINATED LED INDICATORS

 Power On	 AVR	 Using Battery	 Circuit Breaker	 Alarm	Condition
On	Off	Off	Set	Off	Normal
On	Slow flash	Off	Set	Off	AVR- Max. boost 13% of input voltage for output regulation while input voltage is from 8% to 15% undernominal.
On	Rapid flash	Off	Set	Off	AVR- Max. boost 26% of input voltage for output regulation while input voltage is from 15% to 26% under nominal.
Off	Off	On	Set	Two beeps	AVR- Max. buck 13% of input voltage for output regulation while input voltage is from 8% to 26% over nominal.
Off	Off	On	Set	Rapid beeps	Utility Failure- The UPS is providing battery power to the Battery backup outlets.
On/off	On/off/flash	On/off	Set	Long beeps	Utility Failure- The UPS is providing battery power. Rapid beeps indicate the battery will run out of charge within a few minutes.
Off	Off	On	Up	Long beep	Overload- Turn the UPS off and unplug at least one piece of equipment from the UPS. Wait 5 seconds, reset the circuit breaker and restart the UPS.
Off	Off	On	Up	Long beep	Overload- Turn the UPS off and unplug at least one piece of equipment from the UPS. Wait 5 seconds, reset the circuit breaker and restart the UPS.
Off	Off	Off	Set	off	Surge Protection Malfunction- Power surge has damaged the unit. Please contact CyberPower.

BATTERY REPLACEMENT

Contact your dealer or call the CyberPower Technical Support in this manual for information on battery replacement.

Read and follow the IMPORTANT SAFETY INSTRUCTIONS before servicing the battery. **Servicing the battery can only be performed by trained personnel knowledgeable of batteries and their precautions.** Keep unauthorized personnel away from batteries.

CAUTION! Use only the specified type of battery. See your dealer for replacement batteries.

CAUTION! The battery may present the risk of electrical shock. Do not dispose of batteries in a fire, as they may explode. Follow all local ordinances regarding proper disposal of batteries.

CAUTION! Do not open or mutilate the batteries. Release electrolyte is harmful to the skin and eyes and may be toxic.

CAUTION! A battery can present a high risk of short circuit current and electrical shock. Take the following precautions before replacing the battery:

1. Remove all watches, rings or other metal objects.
2. Only use tools with insulated handles.
3. Do not lay tools or metal parts on top of battery or any terminals.
4. Wear rubber gloves and boots.
5. Determine if the battery is inadvertently grounded. If inadvertently grounded, remove source of ground. **CONTACT WITH GROUNDED BATTERY CAN RESULT IN ELECTRICAL SHOCK!** The likelihood of such shock will be reduced if such grounds are removed during installation and maintenance (applicable to a UPS and a remote battery supply not having a grounded circuit).

STORAGE:

First turn off your UPS and disconnect its power cord from the wall outlet. Disconnect all cables connected to the UPS to avoid battery drain. To store your UPS for an extended period, cover it and store with the battery fully charged. Recharge the battery every three months to insure battery life. If the battery remains uncharged for an extended period of time, it may suffer permanent loss of capacity.

REMINDER: Batteries are considered as **HAZARDOUS WASTE** and must be disposed of properly. Contact your local government for more information about proper disposal and recycling of batteries.

PRODUCT REGISTRATION

CyberPower requests that you complete and return the Warranty Registration Card enclosed with the Product or register the Product at its website (www.CPSwww.com) to establish that you are the Initial Customer of the Product, and therefore entitled coverage under the Limited Warranty and the Connected Equipment Guarantee. (Registration is not required for coverage, but note: if you do not register your purchase, you will be required to provide proof of purchase.)

LIMITED WARRANTY AND CONNECTED EQUIPMENT GUARANTEE

Read the following terms and conditions carefully before using the CyberPower PR3000 (the "Product"). By using the Product you consent to be bound by and become a party to the terms and conditions of this Limited Warranty and Connected Equipment Guarantee (together referred to as this "Warranty"). If you do not agree to the terms and conditions of this Warranty, you should return the Product for a full refund prior to using it.

Who Is Providing this Warranty?

CyberPower Systems (USA), Inc. ("CyberPower") provides this Limited Warranty.

What Does This Warranty Cover?

This warranty covers defects in materials and workmanship in the Product under normal use and conditions. It also covers equipment that was connected to the Product and damaged because of the failure of the Product.

What Is the Period of Coverage?

This warranty covers the Product for three years and connected equipment for as long as you own the Product.

Who Is Covered?

This warranty only covers the original purchaser. Coverage ends if you sell or otherwise transfer the Product.

How Do You Get Service?

1. Call us at (877) 297-6937 or write to us at Cyber Power Systems (USA), Inc., 4241 12th Ave. E., STE 400, Shakopee, MN 55379 or send us an e-mail message at claims@cpswww.com for instructions.
2. When you contact CyberPower, identify the Product, the Purchase Date, and the item(s) of Connected Equipment. Have information on all applicable insurance or other resources of recovery/payment that are available to the Initial Customer and Request a Claim Number.
3. You must provide a dated Proof-of-Purchase receipt (or other proof of the original purchase) and provide a description of the defect.
4. Pack and ship the product with a dated Proof- of-Purchase receipt to CyberPower and, if requested, the item(s) of Connected Equipment, a repair cost estimate for the damage to the Connected Equipment, and all claim forms that CyberPower provides to you. Show the Claim Number on the shipping label or

include it with the product. You must prepay all shipping costs, you are responsible for packaging and shipment, and you must pay the cost of the repair estimate.

How Long Do I Have To Make A Claim?

All claims must be made within ten days of the occurrence.

What Will We Do To Correct Problems?

CyberPower will inspect and examine the Product.

If the Product is defective in material or workmanship, CyberPower will repair or replace it at CyberPower's expense, or, if CyberPower is unable to or decides not to repair or replace the Product (if defective) within a reasonable time, CyberPower will refund to you the full purchase price you paid for the Product (purchase receipt showing price paid is required).

If it appears that our Product failed to protect any equipment plugged into it, we will also send you forms for making your claim for the connected equipment. We will repair or replace the equipment that was damaged because of the failure of our Product or pay you the fair market value (NOT REPLACEMENT COST) of the equipment at the time of the damage. We will use Orion Blue Book, or another a third-party valuation guide, or eBay, craigslist, or other source to establish that amount. Our maximum liability is limited to \$400,000 for PR3000.

Who Pays For Shipping?

We pay when we send items to you; you pay when you send items to us.

What Are Some Things This Warranty Does Not Cover?

1. This Warranty does not cover any software that was damaged or needs to be replaced due to the failure of the Product or any data that is lost as a result of the failure or the restoration of data or records, or the reinstallation of software.
2. This Warranty does not cover or apply to: misuse, modification, operation or storage outside environmental limits of the Product or the equipment connected to it, nor for damage while in transit or in storage, nor if there has been improper operation or maintenance, or use with items not designed or intended for use with the Product, such as laser printers, appliances, aquariums, medical or life support devices, etc.

What Other Limitations Apply?

1. This Warranty does not apply unless the Product and the equipment that was connected to it were connected to properly wired and grounded outlets (including compliance with electrical and safety codes of the most current electrical code), without the use of any adapters or other connectors.
2. The Product must have been plugged directly into the power source and the equipment connected to the Product must be directly connected to the Product and not "daisy-chained" together in serial fashion with any extension cords, another Product or device similar to the Product, surge suppressor, or power tap. Any such installation voids the Limited Warranty.
3. The Product and equipment connected to it must have been used properly in a suitable and proper environment and in conformance with any license, instruction manual, or warnings provided with the Product and the equipment connected to it.
4. The Product must have been used at all times within the limitations on the Product's VA capacity.

What are the Limitations?

The sole and exclusive remedies of the Initial Customer are those provided by this Warranty.

The Product was designed to eliminate disrupting and damaging effects of momentary (less than 1ms) voltage spikes or impulses from lightning or other power transients. If it can be shown that a voltage spike lasting longer than 1ms has occurred, the occurrence will be deemed outside the rated capabilities of the Product and the Limited Warranty is void. CyberPower Does Not Cover or Undertake Any Liability in Any Event for Any of the Following:

1. Loss of or damage to data, records, or software or the restoration of data or records, or the reinstallation of software.
2. Damage from causes other than AC Power Line Transients, spikes, or surges on properly installed, grounded and code-compliant 120 volt power lines in the United States and Canada; transients, surges or spikes on standard telephone land lines, PBX telephone equipment lines or Base 10T Ethernet lines, when properly installed and connected. (This exclusion applies, for example, to fluctuations in data transmission or reception, by CATV or RF transmission or fluctuations, or by transients in such transmission.)
3. Damage from any circumstance described as excluded above with respect to the Product.
4. Damages from fire, flood, wind, rain, rising water, leakage or breakage of plumbing, abuse, misuse or alteration of either the product or the Connected Equipment.
5. CyberPower excludes any liability for personal injury under the Limited Warranty and Connected Equipment Guarantee. CyberPower excludes any liability for direct, indirect, special, incidental or consequential damages, whether for damage to or loss of property [EXCEPT FOR (AND ONLY FOR) the specific limited agreement of CyberPower to provide certain warranty benefits regarding "Connected Equipment" under this Warranty], loss of profits, business interruption, or loss of information or data. NOTE: Some States or Provinces do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation may not apply to you.
6. The Product is not for use in high-risk activities or with aquariums. The Product is not designed or intended for use in hazardous environments requiring fail-safe performance, or for use in any circumstance in which the failure of the Product could lead directly to death, personal injury, or severe physical or property damage, or that would affect operation or safety of any medical or life support device (collectively, "High Risk Activities"). CyberPower expressly disclaims any express or implied warranty of fitness for High Risk Activities or with aquariums. CyberPower does not authorize use of any Product in any High Risk Activities or with Aquariums. ANY SUCH USE IS IMPROPER AND IS A MISUSE OF THE PRODUCT.

What is the Fine Print?

The application of the United Nations Convention of Contracts for the International Sale of Goods is expressly excluded.

CyberPower is the warrantor under this Limited Warranty.

For further information please feel free to contact CyberPower at Cyber Power Systems (USA), Inc. 4241 12th Ave E., STE 400, Shakopee, MN 55379; call us at (877) 297-6937; or send us an e-mail message at claims@cpsww.com.

CONFORMANCE APPROVALS



FCC Notice

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference that may cause undesired operation.

WARNING!! This equipment has been tested and found to comply with the limits for a Class B Digital Device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures: (1) Reorient or relocate the receiving antenna. (2) Increase the separation between the equipment and receiver. (3) Connect the equipment into an outlet on a circuit different from that to which the receiver is connected. (4) Consult the dealer or an experienced radio/TV technician for help. Any special accessories needed for compliance must be specified in the instruction.

CyberPower[®]

Reliability. Quality. Value.

For more information, contact us at:

CyberPower North America

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